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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,985	05/21/2001	Patrick Hourquebie	025219-317	8711

7590 09/11/2002

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EXAMINER

YOON, TAE H

ART UNIT	PAPER NUMBER
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1714

11

DATE MAILED: 09/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/786,985

Applicant(s)

Hourguebie et al

Examiner

T. Youn

Group/Art Unit

1714

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 8-7-02
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-14 and 16-18 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-14 and 16-18 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☒ Copies of the certified copies of the priority documents have been received
- in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 16-18 and 11-14 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 14 and specification recite "whose heterogeneity size is 0.1 μm or less, as observed under scanning electron micrography (SEM)". The recited fine resolution of SEM is dependent on the magnification power of said SEM (the higher the magnification, the finer (better) the resolution). However, the specification failed to describe adequately how to measure such resolution or heterogeneity size.

Claim 17 and specification recite "a copolymer containing at least one conjugate system". However, the meaning or definition of said conjugate is not described adequately in the specification. Said conjugate system could mean just a copolymer from two or more monomers, or a copolymer containing conjugated double bonds.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Han et al (US 5,254,633) in view of Conn et al (WO 96/21694).

The rejection is maintained for reason of record and following.

Contrary to applicant's assertion, claims 1-10 do not require the recited heterogeneity size, and claims 1-5, 9 and 10 do not require the recited conductivity. Also, the recited conductivity is directed to a **conducting polymer**, not to the non-conductive polymers as asserted by applicant. The recited "conducting polymer has a conductivity of at least approximately $10^{-9} \text{ S} \cdot \text{cm}^{-1}$ " encompasses a conductivity of higher than said $10^{-9} \text{ S} \cdot \text{cm}^{-1}$ such as 10^{-2} or $10^2 \text{ S} \cdot \text{cm}^{-1}$.

Applicant asserts that a direct mixing of powders or granules does not lead to the recited heterogeneity size, but Han et al does not teach said direct mixing, but rather coating one or more electrical conductive polymer onto non-conductive polymer particles as in the instant invention.

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Han et al teach the use of less than about 5 % by wgt of the conductive polymer at col. 4, lines 63-68 which encompasses the instant 0.5 wt%, for example. Han et al also teach the use of smaller amounts of the conductive polymer when lower electrical conductivity is required at col. 4, lines 24-33. Thus, Han et al teach variation of the amount of the conductive polymer depending on the desired conductivity. Besides, Han et al clearly teach employing 0.1 wt% (1,000 ppm) conductive polymer at col. 2, lines 40-44. The recited improved resistance to thermal ageing is an inherent property.

Claims 11-14 and 16-18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Han et al (US 5,254,633).

Han et al teach coating one or more electrical conductive polymer onto non-conductive polymer particles as in the instant invention.

The recited heterogeneity size has little probative value as the reason given under 35 U.S.C. 112, first paragraph, and it is an inherent property of the material of Han et al since han et al teach the conductive coating thickness of 0.001 to 1000 μm at col. 5, lines 3-15, and thus polymeric particles having the conductive coating thickness of 0.001 to 0.1 μm would inherently yield the recited heterogeneity size. Han et al clearly teach employing 0.1 wt% (1,000 ppm) conductive polymer at col. 2, lines 40-44. The recited improved resistance to thermal ageing is an inherent property.

Thus, the instant invention lacks novelty.

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Claims 9-14 and 16-18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Conn et al (WO 96/21694).

The rejection is maintained for reason of record and following.

Contrary to applicant's assertion, claims 9 and 10 require neither heterogeneity size nor conductivity. Also, the recited conductivity is directed to a **conducting polymer**, not to the non-conductive polymers.

With respect to claim 16, said heterogeneity size has little probative value as the reason given under 35 U.S.C. 112, first paragraph, and it is an inherent property of the material of Conn et al since Conn et al use the same material and process, conducting polymer coated non conducting polymer particles. Polyanilines of Conn et al have at least one conjugate system due to the presence of -N-Aromatic-N=Aromatic=N- units.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

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1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (703) 308-2389. The examiner can normally be reached on Monday to Thursday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9311 (after final rejection).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

THY/September 10, 2002



TAE H. YOON
PRIMARY EXAMINER